



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,831	10/11/2006	Erwin Rinaldo Meinders	NL040450US1	5259

24737 7590 08/17/2010  
PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
P.O. BOX 3001  
BRIARCLIFF MANOR, NY 10510

EXAMINER
----------

MULVANEY, ELIZABETH EVANS

ART UNIT	PAPER NUMBER
----------	--------------

1785

MAIL DATE	DELIVERY MODE
-----------	---------------

08/17/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/599,831	<b>Applicant(s)</b> MEINDERS ET AL.	
	<b>Examiner</b> Elizabeth E. Mulvaney	<b>Art Unit</b> 1785	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 and 21-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 and 21-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-19, 21-25 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,732,844.

The reference discloses the method of forming a master/stamper which includes a master substrate, a first photoresist, an SiO intermediate, and a second photoresist. The resists are etched using different wavelengths of light and developed using different solvents, i.e. by different methods. See col. 4, lines 6-20. After etching and developing the layers, the master is coated with a Ni sputter film. See col. 5, line 9. The photoresist layers may be formed of azos such as diazonaphthoquinone. See col. 4, line 31.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1785

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 19 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,732,844 in view of US 6,238,846.

The '844 reference discloses the master/stamper and method of manufacturing as described in the above 102 rejection. It is recognized that the reference does not disclose forming the Ni layer galvanically. However, the '846 reference shows that this is a known process that would have been available to one of ordinary skill in the art at the time of the invention.

Claims 2-5, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,732,844 in view of US 5,051,340.

The master is disclosed in the '844 reference as described in the above 102 rejection. It is recognized that the reference does not specify a phase-change resist in the claimed thickness. However, the '340 reference discloses the method of manufacturing an optical recording medium using a stamper produced by etching a phase-change material on a substrate. The phase change material may be Te, Sb, Ge, Sn In, etc. and combinations of these elements. See col. 4. The layer may be formed in the claimed thickness range. See col. 4. The layer may be formed of Sn-Ge-Sb. See Example 6. It is recognized that the specific formula for the alloy is not given. However, it would have been obvious to one of ordinary skill in the art to vary the amounts of the elements in the alloy to provide the optimal recording results.

Art Unit: 1785

Claims 9-12, 14-15, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,732,844 in view of US 6,030,556.

The '844 reference discloses the master/stamper and method of manufacturing as described in the above 102 rejection. It is recognized that the reference does not specify a second interface or protective layer on either side of the phase-change mask layer. However, the '556 reference shows that it is known to provide a dielectric and cap layer on either side of the mask layer when forming a stamper. The layers are of the same thickness as claimed. See col. 7-8. Therefore, it would have been obvious to one of ordinary skill in the art to include these layers in the '844 medium. One would be motivated by the reasoned expectation of obtaining the improved recording properties.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,732,844 in view of JP 06-060440.

The '340 reference discloses the master/stamper and method of manufacturing as described in the above 102 rejection. It is recognized that the reference does not disclose a protective layer formed of PMMA. However, the '440 reference disclose the use of protective layers with phase-change mask layers which may be formed of PMMA. See [0010]. Therefore, it would have been obvious to one of ordinary skill in the art to include such a layer for the protective properties provided.

Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,732,844 in view of US 6,709,801.

The '340 reference discloses the master/stamper and method of manufacturing as described in the above 102 rejection. It is recognized that the reference does not disclose a heat sink layer on

Art Unit: 1785

the side of the mask layer opposite the exposure light. However, the '801 reference shows that it is well-known to employ a heat sink layer when recording with phase-change materials. See col. 22 for materials and thickness. Therefore, it would have been obvious to one of ordinary skill in the art to include a heat sink layer in the '844 medium. One would be motivated by the reasoned expectation of obtaining the improved sensitivity disclosed in the '801 reference.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth E. Mulvaney whose telephone number is 571-272-1527. The examiner can normally be reached on Monday-Friday 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Ruthkosky can be reached on 571-272-1291. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Elizabeth E. Mulvaney/

Primary Examiner, Art Unit 1785

Application/Control Number: 10/599,831

Page 6

Art Unit: 1785